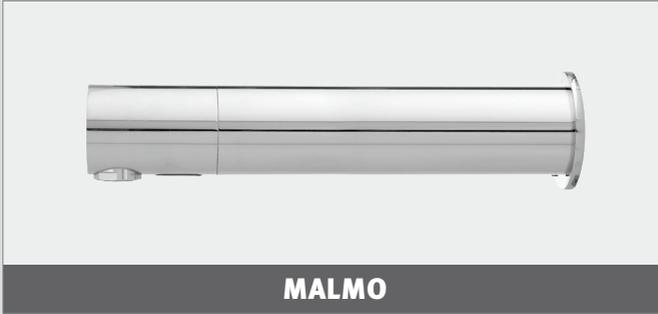


# stern

STERN ENGINEERING LTD.



WALL MOUNTED ELECTRONIC FAUCET

## **MALMO SERIES**

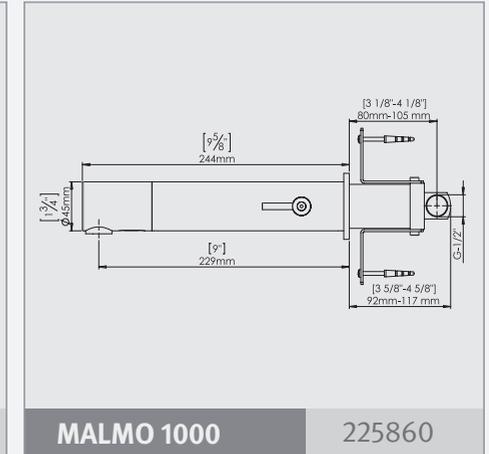
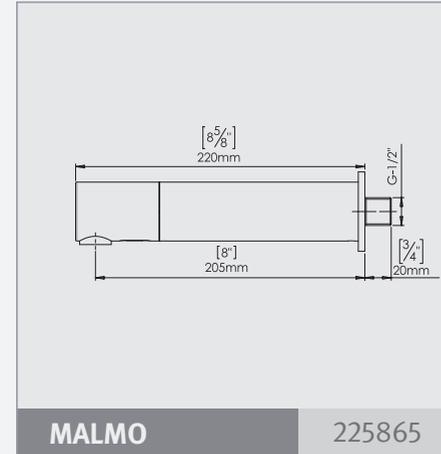
INSTALLATION AND MAINTENANCE GUIDE

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# TECHNICAL DATA



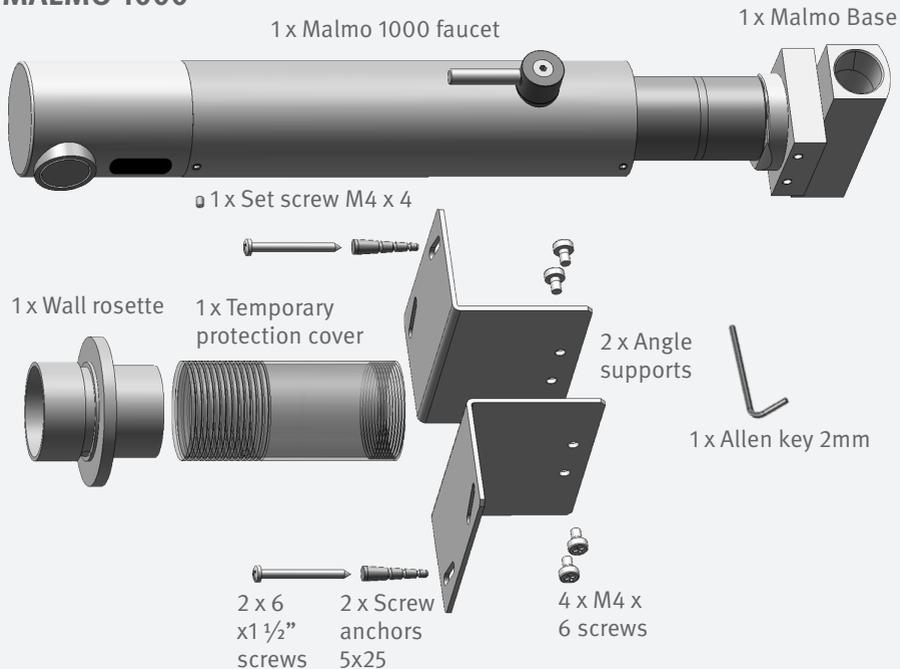
<b>Power supply for battery versions:</b>	9V battery
<b>Recommended water pressure:</b>	0.5-8.0 bar (7-116 PSI) With water pressure of more than 8 bars, use a pressure reducing valve for reduction
<b>Sensor range:</b>	180 mm / 7.08" (customizable with optional remote control)
<b>Minimum sensor range:</b>	30 mm / 1.18"
<b>Maximum sensor range:</b>	300 mm / 11.81"
<b>Security time:</b>	90 seconds. Can be reduced with optional remote control
<b>Hot water temperature:</b>	Max. 70°C

## PACK CONTENTS

### MALMO



### MALMO 1000



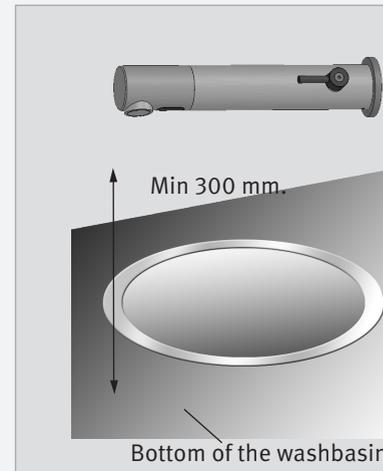
## PRE-INSTALLATION INFO

### CHECK CONTENTS

Separate all parts from the packaging and check each part with the pack contents section. Pay attention to the variations of the different models.

Make sure all parts are accounted for before discarding any packaging material.

If any parts are missing, do not attempt to install your electronic faucet until you obtain the missing parts.



### WARNING

- 1) To avoid reflection problems keep a distance of more than 300 mm. between the sink and the spout.
- 2) This faucet model, with an infrared sensor pointing down, is not intended to be used together with a sink of a reflective material such as stainless steel.
- 3) If a sink strainer is straight below the faucet sensor, use a strainer with a non reflective finish (do not use a chrome plated one).

### PREPARATION FOR INSTALLATION

Flush the water supply lines thoroughly before installing the faucet. Do not allow dirt, teflon tape or metal particles to enter the faucet. Shut off water supply.

### IMPORTANT

All plumbing is to be installed in accordance with applicable codes and regulations.

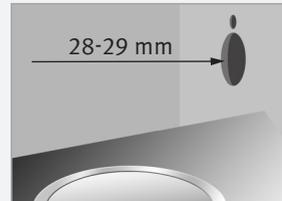
## FAUCET INSTALLATION

MALMO

1. Shut off the water supply.



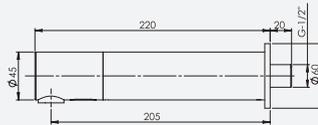
2. Drill a hole (28 to 29 mm.) where you want to install the spout of the faucet, and a small hole just above the previous one for the anti-rotation pin.



3. Screw the faucet base female connection (1/2" external standard) to the male connection of the piping at the wall.

4. Place the wall rosette over the faucet base.

5. Mount the faucet body onto the base. Ensure the sensor is aligned facing down. Secure the body with screw M5 using the supplied Allen key.



6. Remove the protecting sticker that covers the sensor.

7. Turn on the central water supply.

8. Check for leaks.



Note: Malmo includes a special aerator that allows you to adjust the water stream direction on site in order to prevent water splashing if needed. To change the angle of the water stream, simply move the adjustable tilting plate by pressing it smoothly.



## FAUCET INSTALLATION

MALMO 1000

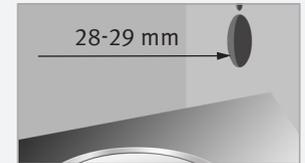
1. Shut off the water supply.



2. Prepare the support bar at the faucet base by assembling the angle supports with the 4 provided screws.

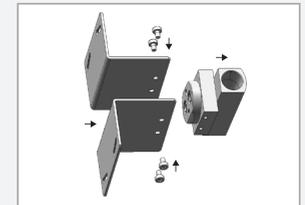
3. Cut an adequate opening in the wall at the place where you want to install the spout of the tap.

4. Drill two orifices at the wall for the anchors.



5. Mount the faucet base to the opening cut in the wall, and set it using the four M4 x 6 screws.

6. During the base fixation process, pay attention to the alignment. The faucet base should be installed so that the outside surface of the finished wall falls between the minimum and maximum lines marked at protective plastic cover.



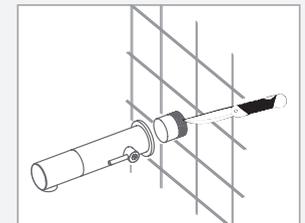
7. The protective plastic cover should be installed at the faucet base until the tiles work is finished.

8. At this point, cut the temporary protective cover at the proper mark at the wall level.

9. Connect the hot and cold water supply pipes to the faucet base

10. Screw the wall rosette to the faucet base.

11. Install the faucet to the rosette; close the set screw using the 2 mm Allen key. Make sure that the faucet is properly aligned so that sensor is facing down.



12. Remove the protecting sticker that covers the sensor

13. Open the water supply.

14. Check for leaks



Note: Malmo includes a special aerator that allows you to adjust the water stream direction on site in order to prevent water splashing if needed. To change the angle of the water stream, simply move the adjustable tilting plate by pressing it smoothly.



If the sensor range is not satisfactory, please refer to the section entitled "Settings adjustment".

## SETTINGS ADJUSTMENT



### Adjusting the settings with the remote control

If necessary, the sensor settings can be adjusted as following:

Shut off the water supply. In order to adjust the sensor with the remote control, hold the remote control straight in front of the sensor in a distance of about 6-8" (15-20cm). Choose the function you want to adjust by pressing once on one of the function buttons. After pressing once on a specific function button, a quick flashing of the LED at the front of the sensor will occur. At this stage, you can change the setting by pressing the (+) or the (-) buttons, every push will increase or decrease one level. After finishing the adjustment, turn the water supply back on.

## SETTINGS ADJUSTMENT



**DETECTION RANGE:** Only if necessary, use the remote control to adjust the sensor range as follows:

Press the RANGE button. Wait until a quick flashing of the LED in the sensor eye is perceived. Then, press + to increase the one level and - to reduce it every push will increase or decrease one level.

**NOTE:** Once you have changed the detection range with the remote control, this distance will be remembered by the sensor, even if the power source is disconnected.



**DELAY IN TIME:** If required, the delay in time can also be modified as follows: Press the IN button. Wait until a quick flashing of the LED in the sensor eye is perceived. Then, press + to increase the delay in time and - to reduce it.



**DELAY OUT TIME:** This button allows modifying the flushing start time after the user moves away from the product. A delay out time close to 0 will save more water. An increased delay out time will make the user experience more comfortable.

If required, the delay out time can be modified as follows: Press the OUT button. Wait until a quick flashing of the LED in the sensor eye is perceived. Then, press + to increase the delay out time and - to reduce it.



**TEMPORARY OFF FUNCTION:** This function is ideal to perform any kind of activity in front of the sensor without operating the system (for example, cleaning).

The product will remain shut for 1 minute when this button is pressed once. To cancel this function and to return to normal operation press the On/Off button again or wait 1 minute.



**RESET BUTTON:** This function restores all the factory settings except for the sensor range. If required, press the Reset button and without releasing it, press the + button once.

## SETTINGS ADJUSTMENT



**SECURITY TIME:** The Security time, prevents continuous flushing of water due to reflections or vandalism. By default, if the sensor is covered for more than 90 seconds the water flow will shut automatically. To resume regular operation any obstruction must be removed.

Press the SEC button. Wait until a quick flashing of the LED of the sensor eye is perceived. Then, press + to increase the security time and – to reduce it.



**24 HOUR HYGIENE FLUSH:** This model includes a 24 hours hygiene flush which is disabled. To activate the hygiene flush, press the clock button. Wait until a quick flashing of the LED in the sensor eye is perceived. Then press + to activate the hygiene flush. To disable it again, press – to deactivate it.



**COMFORT FLUSH:** If your model includes a COMFORT FLUSH setting, it can be activated by pressing the flush button.

When the button is pressed, one blink of the blue in the sensor eye is perceived. The pre-programmed flush cycle will take place then.

The Comfort flush cannot be interrupted or deactivated by pressing any button until it is over.

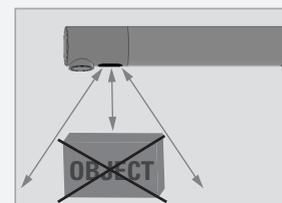
## BATTERY REPLACEMENT

### Low battery indicator

When the battery weakens, the LED indicator light will blink at a constant rate when the user's hands are within the sensor range.

The battery must be replaced within two weeks, as follows:

1. Shut the water supply.
2. To reach access to the battery, unscrew the set screw located at the underside part of the Malmo body using the 2mm Allen key provided.
3. Disassemble the sensor cap.
4. Verify that the o-ring is in good condition. If needed, apply grease or replace it.
5. Remove the old battery, disconnect from the battery connector and take out the battery cover protection.
6. Place the battery cover protection at the new battery and connect to the battery connector. A Lithium battery is recommended.



Check that there are no objects in front of the sensor after the battery replacement was completed.

Wait 15 seconds in order to allow the system to set the ideal sensor range.

**IMPORTANT:** Spent batteries should not be disposed of with normal household waste. Contact your local authority for information on waste disposal and recycling.



### FILTER CLEANING INSTRUCTIONS FOR MALMO

This faucet is provided with a stainless steel filter preventing foreign particles to enter the lines. If the water flow has decreased, this may be because the filter is clogged. The filter can be cleaned as follows:

- Shut-off the water supply and the valve.
- Release the set screw at the faucet body using the 2.5 mm Allen Key. Disassemble the faucet's body from the base.
- Disassemble the filter from the base.
- Wash the filter under running water. If needed, replace the filter with a new one.
- Restore the filter. Reassemble the faucet body to the base setting the screw.
- Re-establish the incoming water supply.
- Make sure that there is no water leakage.



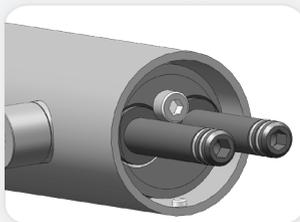
### FILTERS CLEANING INSTRUCTIONS FOR MALMO 1000



- Shut-off the water supply and the valve.
- Release the set screw at the faucet body using the 2 mm Allen Key.
- Pull out the Malmo 1000 body and separate it from the rosette.
- At this point you will have access to the two nipples and

the Allen screw that are located at the internal side of Malmo 1000 faucet. Unscrew this screw using the provided 4 mm Allen key.

- Pull out the nipples and dismount the filters.
- Wash the filters under running water. If needed, replace the filters with new ones.
- Restore the filters. Restore the nipples and close the central screw using the Allen key.



- Reassemble the faucet body to the base with the rosette setting the screw.
- Re-establish the incoming water supply.
- Make sure that there is no water leakage.

### CARE AND CLEANING OF CHROME AND SPECIAL FINISHES

DO NOT use steel wool or cleansing agents containing alcohol, acid, abrasives, or the like. Use of any prohibited cleaning or maintenance products or substances could damage the surface of the faucet. For surface cleaning of faucet us ONLY soap and water, then wipe dry with clean cloth or towel. When cleaning bathroom tile, the faucets should be protected from any splattering of harsh cleansers.

## SPARE PARTS LIST

MALMO / MALMO 1000	
10-pack Sensor Kit	07220374
10-pack Solenoid valve kit	07232000
Battery cover	06500001
Filter	08530013
Remote Control 13B (optional)	07100005
Soap & Water Remote Control (Optional)	07100014

## LIMITED WARRANTY

Y. Stern Engineering Ltd. warrants that its electronic products will be free of defects in material and workmanship during normal use for two years from the date the product is purchased.

If a defect is found in normal use, Y. Stern Engineering Ltd. will, at its discretion, repair, provide a replacement part or product, or make appropriate adjustments. Damage caused by accident, misuse, or abuse is not covered by this warranty. Improper care and cleaning will void the warranty. Proof of purchase (original sales receipt) must be provided to Stern Engineering Ltd. with all warranty claims.

Stern Engineering Ltd is not responsible for labor charges, installation, or other incidental or consequential costs other than those noted above. In no event shall the liability of Stern Engineering Ltd. exceed the purchase price of the product.

If you believe that you have a warranty claim, contact your Stern Distributor, Dealer or Plumbing Contractor. Please be sure to provide all pertinent information regarding your claim, including a complete description of the problem, the product, model number, the date the product was purchased, from whom the product was purchased and the installation date. Also include your original invoice.

Y. STERN ENGINEERING AND/OR SELLER DISCLAIM ANY LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. This warranty excludes product damage due to installation error, incorrect maintenance, wear and tear, battery, product abuse, or product misuse, whether performed by a contractor, service company, or the consumer. This warranty does not cover product damage caused by the following:

- Incorrect installation.
- Inversions of supply pipes.
- Pressures or temperatures exceeding recommended limits.
- Improper manipulation, tampering, bad or lapsed maintenance.
- Foreign bodies, dirt or scale introduced by the water supply or sanitizer tank.
- Use of the soap or sanitizer outside of viscosity specifications.
- Alteration of the original soap/foam/sanitizer dispenser components (including pipes).

Failure to adhere to the safety precautions and/or installation recommendations outlined in this Installation Guide will void the warranty.

## TROUBLESHOOTING

PROBLEM	INDICATOR	CAUSE	SOLUTION
No water coming out of the faucet:	1. Sensor flashes continuously when user's hands are within the sensor's range.	Low battery.	Replace battery
	2. Led in the sensor does not flash once when user's hands are within the sensor's range.	1. Range is too short.	Increase the range
		2. Range is too long.	Decrease the range
		3. Battery is completely used up	The battery must be replaced.
		4. Unit is in "Security Mode"*	
3. Led in the sensor flashes once when user's hands are within the sensor's range.	5. Sensor is picking up reflections from the washbasin or another object.	Eliminate cause of reflection.	
	1. Debris or scale in solenoid.	Unscrew solenoid, pull out the plunger and the spring from the solenoid and clean them. Use scale remover material if needed. When replacing the plunger, please make sure that the spring is in vertical position.	
		2. The central orifice in the diaphragm is plugged or the diaphragm is torn	Clean the orifice or replace diaphragm.
		3. The water supply pressure is higher than 8 bar.	Reduce the supply water pressure.
		4. The water supply pressure is under 8 bars and yet the pressure in the faucet's body is higher. This situation could be caused by a sudden increase in the water supply pressure that the backcheck prevents from dropping, even after water supply pressure drops under 8 bars.	Shut off water supply and unscrew one of the flexible pipes in order to reduce the pressure that blocks the product.
Water flow from spout does not stop:	1. Sensor flashes once when user's hands are within the sensor's range.	1. Debris or scale in diaphragm	Clean the orifice or replace diaphragm.
	2. Led in the sensor does not flash once when user's hands are within the sensor's range.	2. Connectors between the electronic unit and the Dual power input box are disconnected or not connected properly	Connect the connectors properly. Refer to page 6 to see how.
2. Led in the sensor does not flash once when user's hands are within the sensor's range.		1. Sensor is dirty or covered.**	Clean or eliminate case of interference.
	2. Sensor is picking up reflections from the washbasin or another object.	2. Sensor is picking up reflections from the washbasin or another object.	Decrease the range or eliminate cause of reflection.
Water flow diminished			Filter or aerator is clogged

\* "Security Mode": If the sensor is covered for more than 90 sec. the faucet will automatically shut off water flow. To return to normal operation remove any blockage.

\*\* In this case, the water flow will stop anyway after 90 seconds because of the security time.

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